# JOINT STAFF FY 2002 Amended Budget Submission Exhibit R-1, RDT&E Programs

Appropriation: Research, Development, Test & Evaluation

**TOTALS** 

Date: June 2001 TOA, \$ in Millions

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R-1 Line Item No.	Program Element No.	Item	Budget Activity	FY 2000	FY 2001	FY 2002
	0605126J	Joint Theater Air & Missile Defense Organization (JTAMDO)	6	18.379	21.006	26.865
	0208052J	Joint Analytical Model Improvement Program (JAMIP)	7	1.008	11.834	12.163
	0303149J	C4I for the Warrior (C4IFTW)	7	2.971	7.368	9.622
	0902298J	Management Headquarters (JWCA/Analysis Support)	7	9.188	9.406	10.567
	0902298J	Management Headquarters (JSIN)	7	0.000	1.084	.745
	0902740J	Joint Simulation System (JSIMS)	7	20.421	41.708	0.000

51.967 92.406 59.962

### FY 2002 Amended Budget Submission RDT&E Project Justification

	Exhibit R-2, RDT&E Budget Item Justification										
APPROPRIATION/BUDGET A	ACTIVITY				R-1 ITEM NO	MENCLATU	RE				
RDT&E, Defense Wide, Joint S		0605126J Joint Theater Air and Missile Defense Organization (JTAM				TAMDO)					
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to	Total Cost	
								Complete			
Total PE Cost	18.379	21.006	26.865	N/A	N/A	N/A	N/A	N/A	Continuing	Continuing	

A. Mission Description and Budget Item Justification: JTAMDO is the single organization within the Department of Defense chartered to plan, coordinate, and oversee joint integrated theater air and missile defense (TAMD) requirements, joint operational concepts, and operational architectures. JTAMDO is also responsible for proposing and evaluating concepts, architectures, capabilities, and technologies. Evaluations determine deficiencies in the DOD air and missile defense capabilities and their impact on warfighting CINCs in order to define requirements, architectures, and weapon system performance. The JTAMDO functions are: serve as the operational community's proponent for requirements in theater air and missile defense; serve as the joint theater air and missile defense resource proponent within the resource allocation structures of the Services, BMDO, and DARPA; lead TAMD mission area analysis; conduct evaluations and demonstrations of joint air defense architectures and concepts; monitor the research, development, acquisition, and demonstration activity associated with the Service's TAMD programs; recommend to the JROC and Under Secretary of Defense A&T requirements, technologies, architectures, and concepts that should be evaluated, developed, and fielded; develop and maintain the TAMD Master Plan which will contain requirements, assessments of current and future capabilities, and an acquisition roadmap for development and fielding of required capabilities. Increased funding from FY 2000 through FY 2002 is to establish a Joint Distributed Engineering Plant (JDEP). The JDEP's objective is to improve interoperability of weapons systems and platforms through more rigorous testing and evaluation in a replicated battlefield environment. This program is in budget activity 6 – as it performs general support of RDT&E activities.

FY 2000 F	Y 2001	FY 2002	Description
3.888	3.603	3.688	To fund JTAMDO operations, including office lease, equipment, training, facility maintenance, administrative
4.019	1.862	1.936	support, technical support, and travel.  Objective 1 - To develop and validate JTAMD operational concepts through a rigorous process of analysis
1.015	1.002	1.950	simulation and demonstration. These valid operational concepts will be provided to doctrinal authorities for
			implementation.
2.930	3.602	3.656	Objective 2 -To support the development and approval of TAMD Operational Requirements. Support analytical
			foundation and approval of TAMD interoperability requirements by providing analysis and verification of Key
			Performance Parameters (KPPs) and threshold requirements for JROC approval.
2.946	2.783	2.522	Objective 3 - Lead the development and approval of JTAMD Operational Architecture through modeling,
			demonstration, analysis and assessment of TAMD capabilities and requirements.
2.520	2.860	3.438	Objective 4 - Operate and administer the JTAMD process to support mission. Provides for the development of
			analysis and demonstration support of concept and requirements development.
.745	1.066	1.088	Objective 5 - Support the development of Joint TAMD capabilities and initiatives through analysis and
			assessment of current and emerging TAMD capabilities to provide a capabilities roadmap for the future.
1.331	.276	.537	Other - Activities that are broad and transcend all JTAMD activities.
	5.000	10.000	Joint Distributed Engineering Plant to improve testing and evaluation rigor resulting in better interoperability.

### FY 2002 Amended Budget Submission RDT&E Project Justification

Exhibit R-2, RDT&	&E Budget Item Justifica	ation	Date: June 2001	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide, Joint Staff/BA 6	R-1	ITEM NOMENC	LATURE ter Air and Missile Defense Organization (JTAME	DO)
(.046) FY 01 congress	sional non programmatio			
18.379 21.006 26.865 Total				
B. Program Change Summary:				
	FY 2000	FY 2001	FY 2002	
FY 2002 Budget Estimate Submission FY 2002 Appropriated Value Adjustments to Appropriated Value: a. Reallocation of non programmatic reductions	17.379	21.052	26.865	
b. Congressional non programmatic adj/inflation c. Congressional non programmatic rescission	1.000	(.046)		
d. Programmatic increase FY 2002 President's Budget	18.379	21.006	26.865	
Reason for Change: FY 00 increase reflects congressional Or Engineering Plant (JDEP). FY 01 reduction reflects program				ibute
C. Other Program Funding Summary: Not Applicable				
D. Acquisition Strategy: NOT required for Budget Activities	s 1, 2, 3, and 6.			
E. Schedule Profile: NOT required for Budget Activities 1, 2	2, 3, and 6.			

	Exl	nibit R-3 Cost	Analysis (pa	age 1)				Date	e: June 200	)1		
APPROPRIATION/BUDGET	ACTIVITY	7: 0400/BA 6	PROGR.	AM ELEM	ENT 060	5126J		PRC	JECT NA	ME AND NU	MBER:	JTAMDO
Cost Categories	Contract	Performing	Total		FY01			•				Target
(Tailor to WBS, or	Method	Activity &	PYs	FY01	Award	FY02	FY02			Cost To	Total	Value of
System/Item Requirements)	& Type	Location	Cost	Cost*	Date	Cost	Award			Complete	Cost	Contract
							Date					
Infrastructure	C/SS/PO	Various	5.939	3.603		3.688				Continuing	Cont.	
Objective #1	MIPR/C	Various	12.673	1.862		1.936				Continuing	Cont.	
Objective #2	MIPR/C	Various	8.291	3.602		3.656				Continuing	Cont.	
Objective #3	MIPR/C	Various	15.957	2.783		2.522				Continuing	Cont.	
Objective #4	MIPR/C	Various	5.490	2.860		3.438				Continuing	Cont.	
Objective #5	MIPR/C	Various	.745	1.066		1.088				Continuing	Cont.	
Other	MIPR/C	Various	.336	0.276		.537				Continuing	Cont.	
Congressional Addition			92.791									
JDEP				5.000		10.000				50.604		65.604
Congressional non-												
programmatic rescission				(.046)								
TOTAL			142.222	21.006		26.865						
Remarks:	•			•								
Total Cost	<u> </u>	1										
Remarks												<u> </u>
Remarks												

# FY 2002 Amended Budget Submission RDT&E Budget Item Justification

	]	Exhibit R-2,	RDT&E Budge	et Item Justif	ication			Date	e: June 2001	
APPROPRIATION/BUDGI	ET ACTIV	ITY			R-1 ITEM	NOMENCLA	ATURE			
RDT&E, Defense Wide, Join	t Staff/BA 7				PE: 0208	052J Joint Ana	alytic Model	Improvement	Program (JAN	MIP)
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to	Total
									Complete	Cost
Joint Warfare System	1.008	11.834	12.163	N/A	N/A	N/A	N/A	N/A	N/A	TBD
(JWARS)										
Total PE Cost	1.008	11.834	12.163	N/A	N/A	N/A	N/A	N/A	TBD	TBD

A. Mission Description and Budget Item Justification: In May 1995, Deputy Secretary of Defense approved JAMIP to improve analytic support to senior DOD officials. The Joint Staff's J-8 shares the lead with OSD/PA&E. The centerpiece of JAMIP is the development of the Joint Warfare System (JWARS), which will be a state-of-the-art, closed-form, constructive simulation of multi sided, joint warfare for analysis. The Joint Staff and the Services have agreed upon JWARS as the common model to be used throughout the DOD analytic modeling community. JWARS is an advanced theater-level campaign analysis tool that will provide improved Command, Control, Communications, Computers, and Intelligence (C4I) Surveillance and Reconnaissance (C4ISR) and balanced joint warfare representations and will be used for evaluation of courses of action, analysis of force sufficiency, force and capability trade-offs, objective force planning and force structure design, analysis of system alternatives, system trade-offs, and examination of operational concepts. Users of JWARS will include the combatant commanders, Joint Staff, Services, OSD, and other DOD organizations. Over FYs 2001 and 2002, O&M funding for JWARS has been realigned to RDT&E funding as a result of information technology budgeting policy clarification and to comply with House Appropriations Committee guidance (Report 106-244). RDT&E funds are used for system development, research and design, and for test and evaluation, and are needed to continue development of the top priority joint warfare model as directed by Deputy Secretary of Defense and endorsed by Vice Chairman Joint Chief of Staff. This program is in Budget Activity 7 - Operational Systems Development because it supports currently employed systems and training activities.

FY 2000	FY 2001	<u>FY 2002</u>	<u>Description</u>
\$0.000	\$0.075	\$0.075	Travel
\$0.000	\$0.295	\$0.295	Rent
\$0.661	\$10.487	\$10.793	CAAS engineering and technical services services
\$0.347	\$0.800	0.800	FFRDC engineering and technical
	.200	<u>.200</u>	Purchased software
	(.023)	<del></del>	FY 01 congressional non programmatic rescission
\$ 1.008	\$11.834	\$12.163	Total

# JOINT STAFF FY 2002 Amended Budget Submission RDT&E Budget Item Justification

Exhibit R-2, RDT&E Budget Item Justifi	ication Date: June 2001
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE
RDT&E, Defense Wide, Joint Staff/BA 7	PE: 0208052J Joint Analytic Model Improvement Program (JAMIP)
B. Program Change Summary:	TV- 4004
FY 2002 Budget Estimate Submission FY 2008	FY 2001 FY 2002 11.857 12.163
FY 2002 Budget Estimate Submission 1.008 a. Reallocation of non programmatic reductions	11.857 12.163
b. FY 01 congressional non programmatic rescission	(.023)
c. Congressional Realignment for Report 106-244	(
FY 2002 President's Budget 1.008	11.834 12.163
Reductions reflect program's share of congressional non programmatic rescission. Committee guidance (Report 106-244) and to maintain JWARS levels of effort.  C. Other Program Funding Summary:           FY 2000       FY 2001       FY 2002         O&M Defense-Wide       11.296       5.131       4.832         Procurement Defense-Wide       0.696       0.614       .399         D. Acquisition Strategy:       This program supports development of the JWARS mo	
E. Schedule Profile:  (Fiscal Qtr)  Beta testing  Release 1  Release 2  Release 3	1 FY 2001 1 2 3 4 1 2 3 4 X X X

### FY 2002 Amended Budget Submission Project Cost Analysis

	Ez	chibit R-3 Cost	Analysis (1	page 1)					Date: Ju	ine 2001		
APPROPRIATION/BUDGET	ACTIVITY	Υ:	PROGR	AM ELE	MENT:	0208052J	Joint Analy	ytic	PROJE	CT NAME:	Joint Wa	ırfare
RDT&E, Defense Wide, Joint S	Model In	nproveme	nt Progran	n (JAMIP)	)		System	(JWARS)				
Cost Categories	Contract	Performing			FY 01		FY 02					Target
_	Method	Activity &	Total	FY 01	Award	FY 02	Award			Cost To	Total	Value of
	& Type	Location	PYS	Cost	Date	Cost	Date			Complete	Cost	Contract
			Cost									
Management and professional												
support services	Various	Various	1.517	0.121		0.066				N/A	TBD	TBD
CAAS engineering and												
technical services	Various	Various	1.128	9.562		10.155				N/A	TBD	TBD
FFRDC engineering and												
technical services	Various	Various	.904	0.922		0.867				N/A	TBD	TBD
Other services	Various	Various	1.292	1.252		1.075				N/A	TBD	TBD
Congressional non-												
programmatic rescission				(0.023)								
Subtotal Product Development			4.841	11.834		12.163				TBD	TBD	TBD

Remarks: For FYs 2001 and 2002, Operations and Maintenance funding for JWARS has been realigned to RDT&E funding as a result of information technology budgeting policy clarification and to comply with House Appropriations Committee guidance (Report 106-244).

	Total Cost		4.841	11.834	12.163			
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Remarks

# FY 2002 Amended Budget Submission RDT&E Budget Item Justification

	Ex	hibit R-2, R	DT&E Budg	et Item Justif	ication			Date	e: June 2001	
APPROPRIATION/BUDGET	ACTIVITY			R-	1 ITEM NOM	IENCLATUI	RE			
RDT&E, Defense-Wide, Joint	t Staff/BA 7			$C_{4}$	4I for the Warr	rior	0303	149J		
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to	Total
									Complete	Cost
Total PE Cost	2.971	7.368	9.622	N/A	N/A	N/A	N/A	N/A	TBD	TBD
Network Warfare Simulation (NETWARS)	2.768	5.230	5.757	N/A	N/A	N/A	N/A	N/A	TBD	TBD
Joint Warrior Interoperability Demonstrations (JWID)	.203	.201	1.530	N/A	N/A	N/A	N/A	N/A	TBD	TBD
Joint Satellite Communications Architecture Planning and Evaluation (J-SCAPE) toolset	0	1.937	2.335	N/A	N/A	N/A	N/A	N/A	TBD	TBD

A. Mission Description and Budget Item Justification

The C4IFTW vision has evolved into the Department's Global Information Grid (GIG) as a means to achieve information superiority. This program provides focus and visibility into resolving joint C4 capacity and interoperability issues and provides a mechanism for achieving information superiority as envisioned by JV 2020. Currently, the overall GIG efforts stress interoperability, identification of transmission capacity, and leverage the rapid pace of C4 technology advancements. As the GIG evolves and matures, it will spawn new approaches to providing the joint warfighter with C4 capabilities to achieve information superiority. This program element consists of three Joint Staff programs: 1) Network Warfare Simulation (NETWARS), 2) Joint Warrior Interoperability Demonstrations (JWID), and 3) the Joint Satellite Communications Architecture Planning and Evaluation (J-SCAPE) tool. NETWARS will assess the effects of full operational combat traffic loading on current and future tactical communications systems and networks in a Joint Task Force Major Theater of War scenario; conduct quick-turn communications planning for small regional conflicts or peacekeeping scenarios; and evaluate new communication systems and technologies. Funding for the NETWARS program increased FY01-02, incorporated in the table above. This increased funding will accelerate the addition of features and the development of device models for military-unique equipment and systems increase the number and scope of scenarios examined, and supports verification and validation and modeling standards development. It will also dramatically strengthen the ability to assess the impact of new technologies and operational concepts on military communications networks. The second program is JWID. JWIDs are Joint Staff-sponsored C4I demonstrations of existing off-the-shelf and new and evolving C4I technologies that satisfy CINC and Service- identified warfighting deficiencies. The demonstrations, which are jointly screened to determine their ability to satisfy warfighting requirements, enable warfighters to operate these capabilities and assess their ability to enhance their operational missions. Joint interoperability is a key goal of the Chairman Joint Chief of Staff. JWIDs are an integral part of JV 2020 and are a major element of the rapid technology insertion portion of the J6 campaign plan to make the GIG a reality. Funding for FY02 has been revised to reflect CJCS direction to ensure critical milestones are met and Golden Nuggets are expeditiously acquired and fielded during the "exploitation year." The total amount of the required resources has not changed. The required appropriations mix to achieve JWID goals

# FY 2002 Amended Budget Submission RDT&E Budget Item Justification

Exhibit R-2, RDT&E Budget Item Ju	stification		Date: June 2001
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE		
RDT&E, Defense-Wide, Joint Staff/BA 7	C4I for the Warrior	0303149J	

has changed: O&M decreased, procurement decreased, and R&D increased. The current focus of the Satellite Communications (SATCOM) operations analysis and integration effort is the development of the Joint Satellite Communications Architecture Planning and Evaluation (J-SCAPE) Tool Set. J-SCAPE is required to provide decision makers with the means to focus the ongoing modernization of SATCOM assets to transform current systems and choose the "best" architectural alternative for the 21<sup>st</sup> century SATCOM infrastructure. The J-SCAPE tool set is also required to support the planning and evaluation necessary to maximize all four of the operational concepts of JV 2020 - dominant maneuver, precision engagement, focused logistics, and full dimensional protection. Currently, there is not effective, efficient capability to plan and evaluate the ability of current and future SATCOM architectures to meet the CINCs' requirements. When fully operational, the J-SCAPE Tool Set will be used by the Joint Staff, CINCs, their components, other joint organizations, satellite systems program offices, and earth terminal program offices. The Services will use this tool set to assess the adequacy of SATCOM systems to support their assigned missions, evaluate operational plans, define SATCOM – related operational requirements, and provide operational input to the acquisition process.

### B. Program Change Summary.

	<u>FY 2000</u>	<u>FY 2001</u>	FY2002
FY 2002 Budget Estimate Submission	2.971	7.384	9.322
Adjustments:			
a. Congressional non programmatic rescission		(0.016)	
b. Transfer between appropriations			
c. Congressional non programmatic adj/inflation			0.300
FY 2002 President's Budget	2.971	7.368	9.622

JWID FY 02 and out funding has been revised to reflect CJCS direction to ensure critical milestones are met and Golden Nuggets are expeditiously acquired and fielded during the "exploitation year."

### C. Other Program Funding Summary

				10	Total
	FY 2000	FY 2001	FY 2002	<u>Complete</u>	<u>Cost</u>
A Defense-Wide	1.417	1.488	.754	TBD	TBD
urement Defense-Wide	.880	.861	.260	TBD	TBD
	1.417	1.488	.754	TBD	

D. Acquisition Strategy: N/A.

### E. Schedule Profile.

The RDT&E will be spent during various quarters of each Fiscal Year.

### FY 2002 Amended Budget Submission RDT&E Project Justification

	Exhibit R-2a, RDT&E Project Justification Date:										
APPROPRIATION/BUD	APPROPRIATION/BUDGET ACTIVITY PROGRAM ELEMENT PROJECT NAME AND NUMBER										
RDT&E, Defense Wide, Joint Staff/BA 7 0303149J C4I for the Warrior – NETWARS											
Cost (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost	
NETWARS 2.768 5.230 5.857 N					N/A	N/A	N/A	N/A	TBD	TBD	
RDT&E Articles Qty	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

### A. Mission Description and Budget Item Justification:

The C4I for the Warrior (C4IFTW) vision has evolved into the Department's GIG as a means to achieve information superiority. NETWARS will assess the effects of full operational combat traffic loading on current and future tactical communications systems and networks in a Joint Task Force Major Theater of War scenario; conduct quick-turn communications planning for small regional conflicts or peacekeeping scenarios; and evaluate new communication systems and technologies. It will be evolved through prototyping, development, and rigorous verification and validation of a toolkit and its required input information. The objective is to use the simulation to investigate high priority C4ISR technologies in the context of realistic warfighter scenarios. NETWARS will start with small joint Service scenarios, evolve to include complete joint task force (JTF) scenarios, and ultimately to a major theater of war (MTW) with the thousands of communications nodes in a JTF each individually represented in detail. Ultimately, the CINCs will have a tool to assist them in conducting network management scenarios to optimize and ensure full and efficient C4 systems.

FY 2000	FY 2001	FY 2002	<u>Description</u>
.000	1.100	1.470	Tool Kit Functionality
.000	.700	.700	Comm Model Development
.000	.500	.500	IER Refinement
.000	1.746	1.787	Comm Burden Assessment Studies
.000	.200	.200	Contract Engineer and Technical Support (JWID)
.811	.000	.000	Software Development
.200	.200	.200	Verification and Validation
.763	.000	.000	Developmental Studies and Data Expansion
.400	.200	.200	Program Management
.100	.100	.100	Configuration Management
.180	.500	.500	Contractor Engineer Support (FFRDC)
.239	.000	.000	Standardization
.025	.000	.000	COTS hardware and software
.050	.000	.100	Maintenance
	(.016)		FY 01 congressional non programmatic rescission
2.768	5.230	5.757	Total

B. N/A

FY 1997: A Mission Needs Statement was developed and signed. Subsequent to initiating model development, an extensive Program Development Plan was developed and approved by the Director, Command, Control, Communications, and Computer (C4) Systems Directorate (J-6). A proof-of-concept effort validated the concept and determined that NETWARS would support the requirements. *FY 1998:* A Configuration Management Plan, Software Development and Integration Plan, and Systems Architecture Design Plan were developed. Initiated software and communications modules development and integration. NETWARS Toolkit Version 1.1 functional requirements were derived, documented, and formalized. JWARS initial requirements for C4 were evaluated

C. Acquisition Strategy:

### FY 2002 Amended Budget Submission RDT&E Project Justification

Exhib	oit R-2a, RDT&E Project Ju	stification	Date: June 2001
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NAME AND NUMBER	
RDT&E, Defense Wide, Joint Staff/BA 7	0303149J	C4I for the Warrior – NETWARS	

relative to expected analytical outputs from NETWARS. *FY 1999:* Based on further refinement and analysis of requirements, initiated a transition to lower risk developmental software, and toward building the NETWARS Toolkit Advanced Development, Interim Version. Concurrent communications studies of accepted Joint Task Force (JTF) scenarios will help to refine requirements, the development of data, and the development of models that represent the C4 processors, systems, and networks used in a JTF that will become part of the NETWARS data and model repository. Continued development of NETWARS standards. *FY 2000:* Interim Version 2.0 provided to CINCs/Services/Agency (C/S/A) users, including a training course, in Nov 1999. Continued development of NETWARS Toolkit Advanced Development, Version 2.0, associated documentation and completion of a Southwest Asia JTF-based communication burden assessment. *FY2001:* Further expansion of toolkit functionality (Version 2.2 and 2.5), development of needed specific communication system models and information exchange requirements data; a series of developmental studies for Southwest Asia JTF scenarios (of up to 20,000 communication nodes); and gathering requirements from model users. Codify program requirements for subsequent toolkit conversion captured subsequent to extensive use of NETWARS by the CINCs, Services, and Agencies. Continued development of input data in conjunction with communications studies conducted in parallel with model development.

#### D. Schedule Profile and Performance Measures:

The first-Phase review was 23 September 1997, when the Phase I "proof-of-concept" results were presented to the J-6 and Service/agency representatives. The mid-Phase II In-Progress Review (IPR) to the J-6 and the Service/agency reps was held on 19 December 1997. Block I formally began in March 1997 and involved researching and writing a detailed NETWARS development plan, followed by conducting a "proof-of-concept" prototype demonstration of a small JTF scenario of 100 to 200 communications nodes. Block II began in mid-September 1997, and was completed in October 1998. In Block II, J6I continued the design and building to complete version 1.1 of the front-end toolset database, and completed a study of a small JTF of up to 5000 nodes, and a JTF scenario of up to 10,000 nodes. The scenario selected was the Synthetic Theater of War (STOW)/United Endeavor 98-1 scenario, which involved a JTF defense of Kuwait. Block III, Version 2.0, which began in April 1999, involved advanced development, testing, and building of the Interim Version, and Version 2.0 front-end toolkit and database for NETWARS, plus completing a Joint Task Force scenario of up to 5,000 communications nodes. Reviews of Version 2.0 were held in March 2000 with additional upgrading scheduled for Aug - Nov 2000. A refined 5,000-node communication burden assessment is to be completed by Dec 2000. Joint, CINC, Service, and Agency representatives will review that assessment for accuracy and completeness. By integrating input from these users, NETWARS will enhance the abilities of the CINCs, Services, and agencies to meet the goals stated in JV2010, JV2020, and the GIG

	Exhibit R-3 Cost Analysis											
APPROPRIATION/BUDGET A	ACTIVITY:		PROGE	RAM ELI	EMENT:			PROJE	PROJECT NAME:			
RDT&E, Defense Wide, Joint S	taff		0303149J						the warrior	NETWA	RS	
Cost Categories	Contract	Performing	Total		FY01		FY02				Target	
_	Method	Activity &	PYs	FY01	Award	FY02	Award		Cost To	Total	Value of	
	& Type	Location	Cost	Cost	Date	Cost	Date		Complete	Cost	Contract	
Program Definition & Proof of												
Concept	CPFF	SRI, MITRE	.430	0	TBD	0	TBD		TBD	TBD		
Software Development	CPFF	SRI	3.074		TBD		TBD		TBD	TBD		
Program Management	CPFF	SRI/SAIC	1.766	.200	TBD	.200	TBD		TBD	TBD		
COTS Hardware and Software	CPFF	SRI	.395		TBD		TBD		TBD	TBD		
Toolkit Functionality	Fixed	OPNET										
	Price	Technologies		1.139	Dec 00	1.470						
Communication Model												
Development	CPFF	Various		.700		.700						
IER Refinement	CPFF	Various		.500		.500						
Subtotal Product Development			5.665	2.539		2.870			TBD	TBD		
Communications												
Developmental Studies	CPFF	SRI	1.797						TBD	TBD		
Communications Burden												
Assessment Studies	CPFF	Various		1.746	TBD	1.787	TBD					
Configuration Mgmt	CPFF	SRI	.342	.100	TBD	.100	TBD		TBD	TBD		
Maintenance	CPFF	SRI	.177			.100						
P3I	CPFF	SRI										
Subtotal Support Cost			2.316	1.846		1.987						

# FY 2002 Amended Budget Submission Project Cost Analysis

	Ez	xhibit R-3 Cost	Analysis (pag	ge 1)				Date: J	Date: June 2001			
APPROPRIATION/BUDGET A	ACTIVITY:		PROGRAM	M ELEME	NT:	PROJE	PROJECT NAME:					
RDT&E, Defense Wide, Joint S	taff		0303149J					C4I for	the warrior	NETWA	RS	
Cost Categories	Contract	Performing	Total		FY01		FY02				Target	
	Method	Activity &	PYs	FY01	Award	FY02	Award		Cost To	Total	Value of	
	& Type	Location	Cost	Cost	Date	Cost	Date		Complete	Cost	Contract	
Verification & Validation	CPFF	Various	.700	.200	TBD	.200	TBD		TBD	TBD		
Subtotal T&E			.700	.200		.200			TBD	TBD		
Contractor (FFRDC) Eng												
Support	CPFF	Various	.729	.500	TBD	.500	TBD		TBD	TBD		
Contractor Eng and Technical												
Support (JWID)	CPFF	Various	.752	.200	TBD	.200	TBD					
Independent Cost Estimate												
(ICE) (FFRDC)		MITRE	.100		TBD	0	TBD		TBD	TBD		
NETWARS Standardization		Various	.250									
Congressional non												
programmatic rescission				(0.016)								
Subtotal Management			1.831	.684		.700						
Total Cost			10.512	5.230		5.757						

Remarks

Award to SRI, Inc. under sole source contract; awarded Feb 99.

Award to OPNET Technologies under sole source contract, awarded Aug 00.

### FY 2002 Amended Budget Submission RDT&E Project Justification

	Exhibit R-2a, RDT&E Project Justification Date: June 2001										
APPROPRIATION/BUDGET ACTIVITY PROGRAM ELEMENT PROJECT NAME AND NUMBER											
RDT&E, Defense Wide, Joi	149J		C4I for the Warrior - Joint Warrior Interoperability Demonstration (JWID				WID)				
Cost (\$ in Millions)	FY 2000	FY 20	001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
JWID .203 .201 1.530				N/A	N/A	N/A	N/A	N/A	TBD	TBD	
RDT&E Articles Qty N/A N/A N/A N/A					N/A	N/A	N/A	N/A	N/A	N/A	N/A

### A. Mission Description and Budget Item Justification

The C4IFTW vision has evolved into the Department's GIG as a means to achieve information superiority. JWID provides focus and visibility into resolving C4 interoperability issues and provides organizing principles, techniques, and procedures for achieving information superiority as envisioned by JV 2020. The GIG stresses interoperability, and JWID leverages the rapid pace of C4I technology advancements. JWIDs are Joint Staff-sponsored demonstrations of evolving low-cost, low-risk C4I technologies and joint interoperability solutions impartially presented to the CINCs and military Services in an operational environment. Specific demonstrations are selected to fulfill identified warfighter deficiencies and are designed to provide the opportunity to experiment with new and evolving capabilities, assess their value, and recommend them for implementation where appropriate. JWIDs provide a structured process where new C4 capabilities are rapidly inserted after being rigorously vetted, evaluated, and assessed by the warfighter. JWIDs are integral components of the GIG concept and the JV 2020 conceptual template for future joint warfighting. Joint interoperability is a key goal of the Chairman Joint Chief of Staff. JWIDs are a major element of the rapid technology insertion portion of the J6 Campaign Plan to make the GIG a reality. Demonstrations are required to conform with established standards on systems interoperability and must also be integrated into approved architectures that are Defense Information Infrastructure (DII)/Common Operational Environment (COE) Joint Tactical Architecture (JTA)-compliant. FY 02 funding has been revised to reflect Chairman Joint Chief of Staff direction to ensure critical milestones are met and Golden Nuggets are expeditiously acquired and fielded during the "exploitation year." The requirement for R&D to achieve these goals has been increased while O&M and Procurement funding requirements have decreased. These amounts reflect JWID Joint Program Office requirements.

FY 2000	FY 2001	FY2002	Description
.203	.201	1.530	Contract Engineering and Technical Support
.203	.201	1.530	Total

FY 02 and out funding has been revised to reflect CJCS direction to ensure critical milestones are met and Golden Nuggets are expeditiously acquired and fielded during the "exploitation year." The total amount of the required resources has not changed. The required appropriations mix to achieve JWID goals has changed: O&M decreased, procurement decreased, and RDT&E increased.

þ	B. Other Program Funding Sur	mmary			То	Total
		FY 2000	FY 2001	FY 2002	<u>Complete</u>	Cost
	O&M Defense-Wide	1.417	1.488	.754	TBD	TBD
	Procurement Defense-Wide	.880	.861	.260	TBD	TBD

C. Acquisition Strategy: N/A

D. Schedule Profile.

The RDT&E will be spent during various quarters of each Fiscal Year.

	Exhib	oit R-3 Cost An	alysis (pag	ge 1 of 1)					Date: June 2001			
APPROPRIATION/BUDGET	ACTIVITY (	0400/BA 7	PROGRAM ELEMENT 0303149J						PROJECT NAME AND NUMBER C4IFTW (JWID)			
Cost Categories	Contract	Performing	Total		FY 01		FY 02					Target
(Tailor to WBS, or	Method	Activity &	Pys	FY01	Award	FY02	Award			Cost To	Total	Value of
System/Item Requirements)	& Type	Location	Cost	Cost	Date	Cost	Date			Complete	Cost	Contract
Verification & Validation												
Subtotal T&E												
Contract Engineering and Technical Support		Various	.203	.201	TBD	1.530	TBD			TBD	TBD	
Toomis support		, 4110 415	00	.201	132	1.000	133			133	122	
Subtotal Management			.203	.201		1.530				TBD	TBD	
Total Cost			.203	.201		1.530				TBD	TBD	

### FY 2002 Amended Budget Submission RDT&E Project Justification

	Exhibit R-2a, RDT&E Project Justification Date: June 2001										
APPROPRIATION/BUDG RDT&E, Defense Wide, Join	ME AND NU COM Ops Ai		ntegration	Tools)							
Cost (\$ in Millions)	FY 2000	FY 2002	FY 2003	<u> </u>	FY 2005	-		Cost to Complete	Total Cost		
SATCOM Ops Analysis 0 1.937 2.335 N/A and Integration Tools				N/A	N/A	N/A	N/A	N/A	TBD	TBD	
RDT&E Articles Qty	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

A. Mission Description and Budget Item Justification

The current focus of the Satellite Communications (SATCOM) operations analysis and integration effort is the development of the Joint Satellite Communications Architecture Planning and Evaluation (J-SCAPE) Tool Set. J-SCAPE is required to provide decision makers with the means to focus the ongoing modernization of SATCOM assets to transform current systems and choose the "best" architectural alternative for the 21st century SATCOM infrastructure. The J-SCAPE tool set is also required to support the planning and evaluation necessary to maximize all four of the operational concepts of JV 2020—dominant maneuver, precision engagement, focused logistics, and full dimensional protection. Currently, there is not an effective, efficient capability to plan and evaluate the ability of current and future SATCOM architectures to meet the CINCs' requirements. The J-SCAPE tool set mission recognizes the importance of information superiority to each of these operational concepts. Specifically, the J-SCAPE toolset will provide the capability to efficiently and accurately evaluate a set of communication requirements -- captured in the form of a "scenario" -- against a set of SATCOM resources. It will quantify supportability in terms of connectivity and capacity, emphasizing SATCOM parameters such as link budgets, including fading because of rain and scintillation, bit error rates, satellite processing, and crosslinks. Other measures of effectiveness include link availability, delay, resistance to jamming, and intercept or signals exploitation. When fully operational, the J-SCAPE toolset will be used by the Joint Staff, CINCs, their components, other joint organizations, satellite systems program offices, and earth terminal program offices. The Services will use this tool set to assess the adequacy of SATCOM systems to support their assigned missions, evaluate operational plans, define SATCOM-related operational requirements, and provide operational input to the acquisition process. J-SCAPE is presently in early concept exploration, including documentation of mission need, development and documentation of operational and functional requirements, CONOPS, and program management plan. Specifically, this year's accomplishments include the development of the Research Analysis Report, CONOPS, Functional Requirements Document, Initial - High Level Design, and Initial Software Development Plan.

FY 2001	FY 2002	<u>Description</u>
0.917	1.505	Software Development
.200	.200	Program Mgmt
.140	.000	COTS HW & SW
.100	.100	Verification and Validation
.150	.000	Independent Cost Estimate (FFRDC)
.200	.200	Contract Engineering and Technical Support (non-FFRDC)
<u>.230</u>	.330	Contract Engineering & Tech. Support (FFRDC)
1.937	2.335	Total

B. Other Program Funding Summary. N/A

### FY 2002 Amended Budget Submission RDT&E Project Justification

Exhi	bit R-2a, RDT&E Project Ju	estification	Date: June 2001
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NAME AND NUMBER	
RDT&E, Defense Wide, Joint Staff/BA 7	0303149Ј	C4IFTW (SATCOM Ops Analysis and Integration T	ools)

### C. Acquisition Strategy:

FY 2001: The FY01 increment of funding (RDT&E) will be used for the proof-of-concept phase: developing more detailed requirements and inputs for the advanced prototype tool. System requirements specifications, detailed sub system design document, building of the proof-of-concept tool, testing and documentation, and R-1 (release one) of the tool set. FY 2002: Supports the continued requirements refinement and software engineering of the prototype, and actual development of the software tool in compliance with the allocated requirements refined in FY01 and FY02. In addition, because the SATCOM doctrine, requirements, technology, and market are in a continuous state of change, the system-engineering task will continue. This continuing effort will monitor the changing SATCOM environment to ensure that the modeling software will be able to reflect the latest developments.

D. Schedule Profile: This program was a new start in FY00.

FY 2000 FY 2001 FY 2002 FY 2001 FY 2002 FY 200

Contract Award\* -- Jul 97 IOC \*\* (FY 2004/3<sup>rd</sup> Qtr) FOC (To be determined)

<sup>\*</sup> SAIC Inc., under competitively awarded delivery order type support contract, awarded Jul 97. Aerospace Corporation provides FFRDC support. After program definition, prototyping, risk-reduction phases, and then following engineering development (just prior to IOC), J-SCAPE will be openly competed based on fully defined requirement and a mature software design.

<sup>\*\*</sup> J-SCAPE acquisition strategy is to follow a proof-of-concept phase with a series of prototypes to help further define the program, continue to capture and refine requirements, and implement risk-reduction measures. IOC will be achieved following a final engineering development phase with formalized software design, and planning on use of commercial software developmental tools (COTS), as much as feasible. Government Cost Estimates (GCE) are anticipated in FY01 based on documented requirements that are approved at those times.

	Е	xhibit R-3 Cost An	alysis (pa	ige 1)				Date: J	une 2001		
APPROPRIATION/BUDGET A	APPROPRIATION/BUDGET ACTIVITY 0400/BA7				MENT 0	303149J	C4IFTV	PROJECT NAME AND NUMBER C4IFTW – SATCOM Ops Analysis and Integration Tool			
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contrac t Method & Type	Performing Activity & Location	Total Pys Cost	FY01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date		Cost To Complete	Total Cost	Target Value of Contract
Program Definition & Proof of Concept Software Prototype		SAIC,		.917	TBD				TBD	TBD	
Development	CPFF	Aerospace		200	TDD	1.505	TBD		TBD	TBD	
Program Management COTS Hardware and Software	CPFF CPFF	SAIC SAIC		.200 .140	TBD TBD	.200	TBD TBD		TBD TBD	TBD TBD	
Subtotal			N/A	1.257	TBD	1.705	TBD		TBD	TBD	
Verification & Validation		DISA		.100		.100			TBD	TBD	
Subtotal T&E				.100		.100			TBD	TBD	
Independent Cost Estimate (ICE) (FFRDC)	CPFF	Aerospace, AF Cost Analysis Agency		.150		000			TBD	TBD	
Contract Engineering and Technical Support	CPFF	SAIC		.200		.200			TBD	TBD	
Contract Eng. & Tech. Support (FFRDC)	CPFF	Aerospace		.230		.330					
Congressional non programmatic rescission											
Subtotal Management				.580		.530			TBD	TBD	
Total Cost				1.937		2.335			TBD	TBD	
Remarks: All awards to SAIC un	nder compe	titively won umbre	ella suppo	rt contract	, awarded	Jul 97					

### FY 2002 Amended Budget Submission RDT&E Budget Item Justification

	Exhibit R-2, RDT&E Budget Item Justification										
APPROPRIATION/BUDGET	OMENCLA	ΓURE:									
RDT&E, Defense Wide, Joint 8	Staff/BA 7			(	)902298J M	Ianagement l	Headquarters	<ul><li>Various</li></ul>			
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to	<b>Total Cost</b>	
, ,			Complete								
Total PE Cost	9.188	10.490	11.312	N/A	N/A	N/A	N/A	N/A			
Joint Warfighting Capabilities Assessment (JWCA)	9.188	9.406 10.567 N/A N/A N/A N/A N/A TBD TBD								TBD	
Joint Staff Information Network (JSIN)	0.00	1.084	.745	N/A	N/A	N/A	N/A	N/A	TBD	TBD	

A. Mission Description and Budget Item Justification:

This program element contains two distinct projects: Joint Warfighting Capabilities Assessment (JWCA) and Joint Staff Information Network (JSIN).

JWCA are studies conducted in: strike, land, and littoral warfare; strategic mobility and sustainability; sea, air, and space support; deterrence/counter proliferation; regional engagement/presence; command and control (C2); information operations; intelligence, surveillance and reconnaissance; joint readiness; reform initiatives (agency warfighting support); combating terrorism; interoperability; and combat identification. Each JWCA is sponsored by a Joint Staff directorate and is conducted by teams of warfighting and functional experts from the combatant commands, Services, OSD, federally funded R&D centers, and others as necessary. Assessments examine key relationships between warfighting capabilities/interactions and identify opportunities for improving warfighting effectiveness. This program is in Budget Activity 7 - Operational Systems Development because it supports currently employed systems and training activities.

Joint Staff Information Network (JSIN) is the Joint Staff's primary "weapon system." It consists of a classified and an unclassified local area network. The classified system operates at the TOP SECRET level and has access to DOD-wide SECRET networks controlled via a comprehensive system of security checks and guards. The unclassified system provides access to the Internet and hosts our connection to the Defense Message System (DMS) currently being implemented as a replacement for the legacy AUTODIN system. Both systems run the standard Microsoft Office suite of programs. Most day-to-day staff work on the staff is conducted on the classified network using a highly customized software program called the Joint Staff Action Processing (JSAP) system. This system was developed in conjunction with our current information technology (IT) support contractor (Dyncorp) and codifies our processes for creating, routing, reviewing, approving, and archiving staff packages in electronic form. JSAP has numerous commercial counterparts and is being marketed by Dyncorp to other CINCs and Services. Current direction states any commercially procured software requiring modification must be acquired with RDT&E funds. JSIRMO envisions reengineering and enhancing JSAP to keep the system with current IT initiatives including PKI, collaborative tools, and web-based enhancements.

### FY 2002 Amended Budget Submission RDT&E Budget Item Justification

Exhibit R-2, RDT&E Budget	Date: June 2001			
APPROPRIATION/BUDGET ACTIVITY:	R-1 I'	TEM NOMENCLA	ATURE:	
RDT&E, Defense Wide, Joint Staff/BA 7	09022	298J Managemen	t Headquarters – Va	rious
B. Program Change Summary:				
	FY 2000	FY 2001	FY 2002	
FY 2002 Budget Estimate Submission (JWCA)	9.188	9.430	10.567	
FY 2002 Budget Estimate Submission (JSIN)	0.000	1.086	.745	
Adjustments:				
a. Congressional non programmatic rescission (JWCA)		(.024)		
b. Congressional non programmatic rescission (JSIN)		(.002)		
FY 2002 President's Budget	9.188	10.490	11.312	

Reductions in FY 01 reflect program's share of congressional non programmatic rescissions. FY00 – 01 program increase reflects JSIN realignment of funding as a result of IT budgeting policy clarification and to comply with House Appropriations Committee guidance (Report 106-244).

- C. Other Program Funding Summary: See individual project justification.
- D. Acquisition Strategy: n/a.
- E. Schedule Profile: n/a.

### FY 2002 Amended Budget Submission RDT&E Project Justification

	Exhibit R-2a, RDT&E Project Justification									
APPROPRIATION/BUDGE	R-1 ITEM NOMENCLATURE:									
RDT&E, Defense-Wide, Joint Staff/BA 7					0902298J Ma	anagement H	eadquarters -	– Joint Warf	ighting Capabi	ilities
					Assessment (	(JWCA).		-	_	=
(\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to	Total Cost
									Complete	
Total PE Cost	9.188	9.406	10.567	N/A	N/A	N/A	N/A	N/A	TBD	TBD

### A. Mission Description and Budget Item Justification:

Joint Warfighting Capabilities Assessments (JWCA) are studies conducted by joint assessment teams in Precision Engagement; Dominant Maneuver; Full Dimensional Protection; Focused Logistics; Information Superiority; Intelligence, Surveillance, and Reconnaissance; Communications and Computer Environment; and Strategic Deterrence. A Joint Staff directorate sponsors each JWCA team, and their assessments are conducted by teams of warfighting and functional experts from the unified commands, Services, OSD, federally funded research and development centers, and others as necessary. Assessments examine key relationships between warfighting capabilities/interactions and identify opportunities for improving warfighting effectiveness. Program growth between FY 01 and FY 02 is required to meet increasing demand for assessment studies because of CJCS-directed evolution of JROC and JWCA focus to meet congressional expectations of improved joint integration of service materiel development efforts. This program is in Budget Activity 7 - Operational Systems Development because it supports currently employed systems and training activities.

FY 2000	FY 2001	FY 2002	Description
7.391	7.978	8.687	CAAS Contracted Studies
<u>1.797</u>	1.452	1.880	CAAS Studies Federally Funded Research and Development Centers
	(.024)		FY 01 congressional non programmatic rescission
9.188	9.406	10.567	Total

B. Other Program Funding Summary:

				10	Total
	FY 2000	FY 2001	FY 2002	<u>Complete</u>	Cost
O&M Defense-Wide	2.868	4.026	7.131	7.020	N/A

- C. Acquisition Strategy: This program represents a continuing level of effort supporting a wide range of JWCA studies to support the JROC process. The deliverables in each study reflect the analysis required to assist decision makers as they examine the relationships between warfighting capabilities/interactions and identify opportunities for improving warfighting effectiveness.
- D. Schedule Profile: N/A

	Ex	hibit R-3 Cost	Analysis					Date	: June 20	01		
APPROPRIATION/BUDGET A	ACTIVITY:		PROGRAM ELEMENT: 0902298J Management					PRO	PROJECT NAME: JWCA Studies			
RDT&E, Defense Wide, Joint S	taff/BA 7		Headquarter	rs.								
Cost Categories	Contract	Performing	Total		FY 01		FY 02					Target
	Method	Activity &	PYs	FY01	Award	FY	Award			Cost To	Total	Value of
	& Type	Location	Cost	Cost	Date	02	Date			Complete	Cost	Contract
						Cost						
Contracted Studies	C/FP/											
	MIPR	TBD	29.211	7.978	Var	8.687	TBD			Cont	TBD	TBD
Subtotal Support			29.211	7.978		8.687				Cont	TBD	TBD
Remarks: JWCA studies are no	t manageme	nt organization	s. The studi	es support	the Joint S	taff direct	torates and	CINCs a	ınd are ex	ecuted IAW	lirectives	received
from the JROC. JWCA studies	evaluate wa	rfighting and su	apporting are	ea assessm	ents vice de	eveloping	deliverable	system	s. FY 200	01 cost estima	ites canno	ot be
determined pending prioritization	on by the JRO	OC.										
FFRDC Studies	Reqn	TBD	8.329	1.452	Var	1.880	TBD			Cont	TBD	TBD
Congressional non-												
programmatic rescission				(0.024)								
Subtotal Support			8.329	1.452		1.880				Cont	TBD	TBD
Remarks: JWCA studies are no	t manageme	nt organization	s. The studi	es support	the Joint S	taff direct	torates and	CINCs a	ınd are ex	ecuted IAW	directives	received
from the JROC. JWCA studies												
determined pending prioritization								-				
Total Cost			37.540	9.406		10.567						

### FY 2002 Amended Budget Submission RDT&E Budget Item Justification

Exhibit R-2a, RDT&E Project Justification Da								2001		
APPROPRIATION/BUDGET ACTIVITY PROGRAM ELEMENT							PROJECT NAME AND NUMBER			
RDT&E, Defense Wide,	RDT&E, Defense Wide, Joint Staff/BA 7						Joint Staff Information Network (JSIN)			
Cost (\$ in Millions) FY 2000 FY 2001 FY 2002				FY 2003	Y 2003 FY 2004 FY 2005 FY 2006 FY 2007 Cost to Comple			Cost to Complete	Total Cost	
JSIN	JSIN 0 1.084 .745 N/A N/A N/A						N/A	N/A	TBD	TBD

A. Mission Description and Budget Item Justification: JSIN is The Joint Staff's primary "weapon system." It consists of a classified and an unclassified local area network. The classified system operates at the TOP SECRET level and has access to DOD-wide SECRET networks controlled via a comprehensive system of security checks and guards. The unclassified system provides access to the Internet and hosts our connection to the Defense Message System (DMS) currently being implemented as a replacement for the legacy AUTODIN system. Both systems run the standard Microsoft Office suite of programs. Most day-to-day staff work is conducted on the classified network using the Joint Staff Action Processing (JSAP) application, which consists of several COTS applications integrated to meet the Joint Staff business process. This application is being developed in conjunction with our current information technology (IT) support contractor (Dyncorp) and codifies our processes for creating, routing, reviewing, approving, and archiving staff packages in electronic form. Phase VI upgrade is planned for FY 01 to provide enhanced functionality and integrate a Document Management/Records Management Archive. JSAP has numerous commercial counterparts, and is in fact being marketed by Dyncorp to other CINCs and Services. JSIRMO envisions reengineering and enhancing JSAP to keep the system in step with current IT technology initiatives including PKI, collaborative tools, and web based enhancements. In FY01 JSIN reduced by \$8K as part of congressional non programmatic rescission.

B. Other Program Funding Summary:

 FY 2000
 FY 2001
 FY 2002

 O&M Defense-Wide
 0.000
 0.549
 0.600

- C. Acquisition Strategy: JSAP will continue to be upgraded and integrated while we evaluate candidate replacements. Staff buy-in will be paramount due to how deep JSAP permeates through the daily operations of the Joint Staff. JSIRMO/SEID will evaluate candidates in conjunction with the staff and our support contractor. Identified enhancements will be integrated into JSIN via contract task orders issued to our support contractor. We envision periodic software upgrades to the system driven by contractor upgrades, version releases, and emergency-fix releases. System life cycle is envisioned to be 4 years because of the pace of technology upgrades.
- D. Schedule Profile: RDT&E funding line is new to this program starting in FY 01. RDT&E will be spent during various quarters of each fiscal year.

### FY 2002 Amended Budget Submission RDT&E Budget Item Justification

		Date	e: June 2001							
RDT&E, Defense Wide, Joint Staff/	OMENCLATU	JRE: Joint	Simulation S	ystem (JSIMS)	)					
									Cost to	
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Complete	Total Cost
Total PE Cost	20.421	41.708	(38.000)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Quantity of RDT&E Articles	1	1								

A. Mission Description and Budget Item Justification

JSIMS is the next generation Modeling and Simulation (M&S) tool to support training for Commanders in Chiefs (CINCs), their components, Joint Task Force (JTF) staffs, other Joint organizations, DoD agencies, and the Services. JSIMS will provide the ability to jointly train, educate, develop doctrine and tactics, formulate and assess operational plans, assess warfighting situations, define operational requirements, provide operational input into the development of new weapon systems and perform mission planning and mission rehearsal. JSIMS will support all phases of military operations and Military Operations Other Than War (MOOTW). JSIMS will allow warfighters to train as they intend to fight by interfacing into the simulation through their real-world C4I systems. JSIMS is key in supporting the operational concepts of Joint Experimentation and will improve the interoperability and efficiencies of the Services. JSIMS is specifically supported by the April 2000 Defense Planning Guidance (page 67) and the 2000 Secretary of Defense Annual Report to the President and Congress (page 36). This program is in Budget Activity 7 – Operational Systems Development, because it supports currently employed systems and training activities. PDM I transfers JSIMS to the Department of Army in FY02 (Program Element 0604738A, Project J11).

### FY 2000

- \$ .900 Civilian Pay Compensation and Benefits
- \$ .400 Travel
- \$ .250 Office Space Lease
- \$ 1.549 CAAS Studies/Engineering Technical Support
- \$15.271 Purchased Software
- \$ .051 Other Program Costs
- \$ 2.000 Congressional Omnibus reprogramming
- \$20.421 Total

#### FY 2001

- \$ 1.415 Civilian Pay Compensation and Benefits
- \$ .460 Travel
- \$ .350 Office Space Lease
- .270 Contract Studies
- \$ 3.491 CAAS Studies/Engineering/Technical Support
- \$27.588 Purchased Software
- \$ 5.605 Application Software Maintenance & Development
- \$ 2.621 Other Program Costs
- \$(0.092) FY 01 congressional non programmatic rescission
- \$41.708 Total

### FY 2002 Amended Budget Submission RDT&E Budget Item Justification

Exhibit R-2, RDT&	E Budget Item Justit	fication		Date: June 2001
RDT&E, Defense Wide, Joint Staff/BA-7		R-1 ITEM NOMI	ENCLATURE :	Joint Simulation System (JSIMS)
B. Program Change Summary:				
	FY 2000	FY 2001	FY 2002	
FY 2002 Budget Estimate Submission	18.421	41.800	17.900	
Adjustments:				
a. Congressional non programmatic rescission		(0.092)		
b. FY 00 Omnibus reprogramming	2.000			
c. Functional Transfer			20.100	
d. Functional Transfer			(38.000)	
FY 2002 President's Budget	20.421	41.708	0.000	

Reason for change: FY 00 reflects Congressional Omnibus reprogramming adjustment. FY 01 decrease reflects program's share of congressional non programmatic rescission. Programmatic increase results from Congressional decision to increase funding in program due to programmatic restructure in Dec 99 and designation as an ACAT 1D program. Changes reflected are governed by PDM I (Issue Paper #9) dated 24 Aug 00. JSIMS transfers to the Department of the Army in FY 02.

- C. Other Program Funding Summary: N/A
- D. Acquisition strategy: Deliver JSIMS as defined in the Operational Requirements Document (ORD). This development effort is in conjunction with the program acquisition strategy currently being revised and planned for completion by October 2000 and in accordance with a revised Acquisition Program Baseline (APB) due for completion in March 2001.

E. Schedule Profile.  (Fiscal Qtr)  (Fiscal Qtr)  1 2 3 4  Federate Integration Event 1  Federate Integration Event 2  X  Figure 2000  1 2 3 4  1 2 3 4  1 2 3 4  1 2 3 4  1 2 3 4	
Federate Integration Event 1 X	
Federate Integration Event 2 X	
- * **********************************	
Federate Integration Event 3 X	
Federate Integration Event 4 X	
Federation Integration Event 1 X	
Federation Integration Event 2 X	
Federation Integration Event 3 X	
Federation Integration Event 4 X	
Federation Integration Event 5 X	
Systems Test X	
Version Release Milestone (Version 1.0) X	
User Events X X X X	
OT&E Events X X	
IOC Event	
OSD MS III Fielding Decision	

		Exhibit R-3, Projec	t Cost Ana	alysis				Date: June 2001					
APPROPRIATION/BUDG	PROGR	AM ELEN	MENT: 0	902740J			PROJECT NAME: Joint Simulation System						
RDT&E/BA 7								(JSIMS)	(JSIMS)				
			(\$ in Mil	lions)									
Cost Categories	Contract	Performing	Total		FY 01		FY 02				Target		
	Method	Activity &	PYs	FY 01	Award	FY 02	Award		Cost To	Total	Value of		
	& Type	Location	Cost	Cost	Date	Cost	Date		Complete	Cost	Contract		
Development Support	DO	ARINC/PTI,				27/4	37/4		27/1	27/1	27/4		
		Annapolis, MD	.945			N/A	N/A		N/A	N/A	N/A		
Software Development	CPAF	TRW, Orlando,											
		FL	31.925	10.236	11/00	N/A	N/A		N/A	N/A	N/A		
Training Development						N/A	N/A		N/A	N/A	N/A		
Integrated Logistics Supp						N/A	N/A		N/A	N/A	N/A		
Configuration Mgt						N/A	N/A		N/A	N/A	N/A		
Technical Data						N/A	N/A		N/A	N/A	N/A		
Award Fees			1.370	1.222	6/01	N/A	N/A		N/A	N/A	N/A		
Subtotal Support			34.240	11.458		0.000	0.000		0.000	0.000	0.000		
Remarks: These contracts a	awarded by U	JSAF, Electronic S	ystems Co	mmand, I	Hanscom A	AFB, MA.	TRW contra	ct currently being	g descoped and	d rebaselin	ed with Cost		
Proposal due from contracto	or by 1 Oct 0	00.											
Developmental Test &	MIPR	Army, APG,				N/A	N/A		N/A	N/A	N/A		
Evaluation		MD	.075	.600	12/00								
Subtotal T&E			.075	.600		0.000	0.000		0.000	0.000	0.000		
Systems R&D	IDIQ/	Nations,				N/A	N/A		N/A	N/A	N/A		
Development	T&M	Inc./BTG.											
Support		Orlando, FL	3.364	1.287	12/00								
Systems R&D	FFRDC/	Mitre Corp.,				N/A	N/A		N/A	N/A	N/A		
Development Support	CPFF	McLean, VA	1.379	2.310	10/00								
Government Engineering	MIPR	Army, Orlando,				N/A	N/A		N/A	N/A	N/A		
Support		FL	.350	.275	10/00								
Government Engineering	MIPR	Army, Orlando,				N/A	N/A		N/A	N/A	N/A		
Support		FL	.193	.113	10/00								

Exhibit R-3 Cost Analysis (page 2) Joint Simulation System (JSIMS)							Date: June 2001				
APPROPRIATION/BUDGET ACTIVITY: RDT&E/BA 7				PROGRAM ELEMENT: 0902740J				PROGRAM NAME: JSIMS			
Contract Method	Performing	Total	FY 01	FY 01	FY 02	FY 02 Award		Cost To	Total	Target Value of	
& Type	Location	Cost	Cost	Date	Cost	Date		Complete	Cost	Contract	
					N/A	N/A		N/A	N/A	N/A	
MIPR		.090	.095	10/00							
MIPR	NPGS, Monterey, CA	.290			N/A	N/A		N/A	N/A	N/A	
	USAF, Hanscom AFB, MA				N/A	N/A		N/A	N/A	N/A	
MIPR		.734	.062	10/00							
MIPR	Navy, Orlando, FL	.461	3.431	12/00	N/A	N/A		N/A	N/A	N/A	
MIPR	Navy. Orlando, FL	1.463	1.415	10/00	N/A	N/A		N/A	N/A	N/A	
MIPR	Various	2.000	20.754	10/00	N/A	N/A		N/A	N/A	N/A	
			(0.092)		N/A	N/A		N/A	N/A	N/A	
		10.086	30.250		0.000	0.000		0.000	0.000	0.000	
		46.401	41.708		0.000	0.000		0.000	0.000	0.000	
	ET ACTIV Contract Method & Type  MIPR MIPR MIPR MIPR MIPR MIPR	Contract Performing Method Activity &	ET ACTIVITY: RDT&E/BA 7 PROGR  Contract Performing Total Method Activity & PYs & Type Location Cost  MIPR Various .090  NPGS, Monterey, CA .290  USAF, Hanscom AFB, MA .734  Navy, Orlando, MIPR FL .461  Navy. Orlando, FL 1.463  MIPR Various 2.000  10.086	ET ACTIVITY: RDT&E/BA 7         PROGRAM ELENT           Contract Method Activity & Total & PYs         FY 01           & Type Location         Cost           MIPR Various NPGS, Monterey, CA USAF, Hanscom AFB, MA         .290           MIPR Navy, Orlando, FL Navy, Orlando, FL 1.461         3.431           MIPR FL 1.463         1.415           MIPR Various 2.000         20.754           MIPR Various 3.0.250	Contract	Contract	Contract   Performing   Activity &   PYS   FY 01   Award   FY 02   Award   Date   Cost   Date   Da	PROGRAM ELEMENT: 0902740J   PROGRAM NAME	PROGRAM NAME: JSIMS   PROGRAM ELEMENT: 0902740J   PROGRAM NAME: JSIMS	PROGRAM NAME: JSIMS	

Remarks Reflects current amount to complete Integration & Development Contract awarded 2 Dec 96; however, contract is currently being descoped and rebaselined due to JSIMS program restructure. Target date for revised proposal is Oct 00. JSIMS program being transferred to Department of Army effective FY 02. New program element is 0604738A, Project J11.